

In the claims:

*Please amend 5-9, 12, 14-15, and 17-18, 21-30 as follows:*

✓ 5. (Amended) The antibody according to [any of claims 1-4] claim 1 having specificity to phosphatase domains of protein tyrosine phosphatases.

✓ 6. (Amended) The antibody according to [any of claims 1-5] claim 1, which is generated using a polypeptide that is encoded by a nucleotide sequence set out in SEQ ID NO: 1.

✓ 7. (Amended) The antibody according to [any of claims 1-6] claim 1 wherein the antibody is a monoclonal antibody.

✓ 8. (Amended) The antibody according to [any of claims 1-7] claim 1 wherein the antibody is generated using a fusion protein comprising a protein tyrosine phosphatase domain and another protein or a polypeptide, as an immunogen.

✓ 9. (Amended) The antibody according to [any of claims 1-7] claim 1 wherein the antibody is generated using a GST-LAR phosphatase domain fusion protein as an immunogen.

✓ 12. (Amended) The antibody according to [any of claims 8-11] claim 8 wherein screening of the antibody that was generated using the fusion protein as an immunogen is performed using said fusion protein.

✓ 14. (Amended) The antibody according to [any of claims 7-13] claim 7 having a molecular weight of about 146 kDa.

✓ 15. (Amended) A hybridoma cell line that produces the monoclonal antibody according to [any of claims 7-12] claim 7.

17. (Amended) A method for generating an antibody according to [any of claims 1-14] claim 1, comprising the step of:

immunizing an animal with [wherein] a fusion protein that [comprising] comprises a protein tyrosine phosphatase domain and another protein or a polypeptide fragment [is used as an immunogen].

18. (Amended) A method for generating an antibody according to [any of claims 1-14] claim 1, comprising the step of:

immunizing an animal with [wherein] a GST-LAR phosphatase domain fusion protein [is used as an immunogen].

21. (Amended) The method according to [any of claims 17-20] claim 17, further comprising the step of:

screening antibodies generated in the immunizing step [wherein screening of the antibody that was generated using the fusion protein as an immunogen is performed] using said fusion protein.

22. (Amended) A method for isolating a novel protein tyrosine phosphatase comprising a step of:

screening a protein tyrosine phosphatase, [wherein the antibody according to any of claims 1-14 is used in said step of screening] using said antibody according to claim 1.

23. (Amended) The method according to claim 22 wherein said screening [is performed by] comprises expression screening of a cDNA library.

24. (Amended) A method of quantitative determination of protein tyrosine phosphatase and/or protein tyrosine phosphatase derived molecules comprising a step of:

determining an amount of protein tyrosine phosphatase protein and/or a fragment or a polypeptide that comprises at least a part of an intracellular domain of protein

tyrosine phosphatase, which is contained in a test sample using the antibody according to [any of claims 1 to 14] claim 1.

25. (Amended) The method according to claim 24 wherein the [antibody is used] determining step comprises using said antibody in any of immunoblotting, immunoprecipitation and ELISA.

26. (Amended) A method for quantitative determination of protein tyrosine phosphatase and/or protein tyrosine phosphatase derived molecules comprising steps of:  
isolating protein tyrosine phosphatase and/or a fragment or a polypeptide that comprises at least a part of an intracellular domain of protein tyrosine phosphatase, from a test sample using the antibody according to [any of claims 1-14] claim 1; and  
measuring an activity of the isolated protein, fragment or polypeptide.

27. (Amended) The method according to claim 26 wherein said isolating step comprises affinity chromatography and/or immunoprecipitation [by using a support that was bound] with the antibody bound to a support [are utilized in said isolation step].

28. (Amended) A method for producing protein tyrosine phosphatase and/or protein tyrosine phosphatase derived molecules comprising a step of:  
isolating protein tyrosine phosphatase protein and/or a fragment or a polypeptide that comprises at least a part of an intracellular domain of protein tyrosine phosphatase using the antibody according to [any of claims 1-14] claim 1.

29. (Amended) The method according to claim 28 wherein said isolating step comprises affinity chromatography and/or immunoprecipitation [by using a support that was bound] with the antibody [are utilized in said isolation step] bound to a support.